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Public Citizen's Texas Office

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How Much Money was made during the Blackouts?

Could The Blackouts have been Caused by Market Manipulation?

What Can Be Done to Prevent Future Blackouts?

On a cold winter night in February 2003, one TXU energy trader said to another, "its 18 degrees outside ... get out the hockey sticks ... there is an inch of ice and three inches of crystal right on top of it ..." Then suddenly there wasn't enough power being sold on the "spot market" because a conscious decision to withhold energy from the market which resulted in the price per MWh on the spot market shooting up like the tip of a hockey stick ... and millions were made.

This style of money making by withholding energy in the spot market was right out of the Enron playbook. TXU (now Luminant) made a lot of money that night. They were subsequently fined by the PUC for market manipulation - but the fine paid was a fraction of the profits they made. The PUC adopted a series of reforms but they have had only limited the impacts.

How much money was made during this last blackout? It will be several months before the market settles out and we know fully. However, we can get a good estimate by looking that the balancing energy market, which is the spot marketplace where those who don't have enough energy go to buy from those who have an excess.

That usually translates to about 5% of the market, but with 8,000 MW of plants being offline, we suddenly had a lot of traders looking on the market for **energy at any price**, and the cost of energy quickly hit the cap price of \$3,000 per MWh with a 5% balancing energy or spot market cost to the market of \$49.6 million on February 2nd.

When you contrast that with the previous day, when the highest price per MWh was \$394 giving us a total cost on the spot market of just \$2.3 million, and then again when the system had stabilized on the 4th of February with a total cost on the spot market of about \$2.8 million, that's quite a difference from the day when many Texans were sitting for extended periods of time in the dark and the cold. So, if the spot market was just 5% – the overcharges would come to about \$46 million more than was paid the day before.

But this may be understating the costs. If 8,000 MW were offline then the spot market was more like 15% of the total market, and at \$3,000 MWh then that could inflates the spot market costs to \$149 million. With the additional costs presented at the ERCOT board meeting (see the slides from the report

delivered on Feb 14) the day ahead market was rising before and after the event, there was \$130 million in the day ahead market, 10 times the normal price, for the following day (Feb 3rd) and the ancillary services market charges are reported to be 60 million additional dollars as the market bounced in response to the high prices. The total additional cost of this single event could be as much as \$500 million dollars, when all the market charges are finally added up.

And there were other costs, too. People lost work because they couldn't get around because traffic lights were out, productivity was down for many businesses because power was off at their place of business or at other locations upon whom they were dependent, and at last one **person died** as a result of this incident.

Before deregulation, when bad weather was coming, regulated utilities were expected to start up plants in advance, and were fined if there were market shortages. In today's deregulated market we reward market shortfalls and allow participants to make millions, leaving us with an electricity market that has failed Texas at both ends. If our power supply is dependent on the whims of that market then last week probably won't be the last time it leaves us in the dark.

So how do we prevent blackouts in the future? We can use the Energy Plan that Senator Fraser is working on as an opportunity to transform and modernize the way we generate energy in Texas. We need to look at the dynamic between all three legs of the stool: Consumers, electric providers and gas companies.

- Create an extreme weather advance market. Require ERCOT to call for ramping up of generating units in advance of extremely hot or cold weather or high winds. Preparation is cheaper than reacting after a crisis.
- A few big plants tripping off line caused the blackout. We think we should repower Texas and begin to replace our oldest centralized large plants with modern smaller generating resources, such as natural gas, solar, geothermal and energy storage.
- Reward load shedding technologies such as smart meters that can reduce the use of unneeded appliances in times when the grid is stressed.
- Don't prop up old coal plants. Retrofitting Texas coal plants to meet modern health based standards, is like retrofitting pollution controls onto an 80's model Chevy at some point the cost of repairs exceeds its value. Our estimates of retrofit costs is in excess of \$6 billion and we are importing \$2 billion of coal annually. Combined, these costs exceed the value of those plants. We should consider whether it makes more sense to invest those billions into Texas resources and Texas jobs.
- Make sure that our natural gas supplies are secure. Assure that gas plants aren't interrupted by
 contracts or preferences if no other generating resources are available. Keep the pressure up by
 having natural gas fired compressor motors as back up. Clean up fracking by requiring tough air
 emissions, water use and disposal standards and green completion requirements.

Date	Peak MW per day	Average Load in MW	Total number of MWH's reported sold	5% of total MWH's	15% of total MWH
1-Feb	54,632	42,795	1,027,068	51,353	154,060
2-Feb	56,334	51,964	1,247,129	62,356	187,069
3-Feb	55,769	52,373	1,256,957	62,848	188,544
4-Feb	52,906	48,191	1,156,580	57,829	173,487
Date	Maximum price paid per MW	Average Daly Price	Estimated total amount of market in dollars	5% of market in dollars	15% of market total in dollars
1-Feb	\$394.16	\$42.06	\$47,570,366.25	\$2,378,518.31	\$7,135,554.94
2-Feb	\$3,142.21	\$787.51	\$992,899,390.42	\$49,644,969.52	\$148,934,908.56
3-Feb	\$1,918.36	\$140.38	\$181,382,744.49	\$9,069,137.22	\$27,207,411.67
4-Feb	\$88.39	\$47.72	\$55,691,173.61	\$2,784,558.68	\$8,353,676.04